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10/524,485	02/14/2005	Mitsuru Shinagawa	44471/312241	8636

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EXAMINER	
VARGHESE, MATHEW	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/524,485	SHINAGAWA ET AL.	
	Examiner	Art Unit	
	MATHEW VARGHESE	4181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/14/05, 12/26/06, 03/29/07, 06/13/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election without traverse of Group 1 claims 1-23 in the reply filed on October 15, 2007 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 5-11, 12, and 13 rejected under 35 U.S.C. 102 (e) as being anticipated by Shinagawa et al (US 7,263,295 B2).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Consider claim 1, Shinagawa discloses a transceiver **(see Abstract ln 1-9, Shinagawa discusses a transceiver)**, a transmitting and receiving electrode that induces an electric field in an electric field transmission medium **(see Abstract ln 1-9**

and col. 10 ln 25-35, Shinagawa discusses a transmitting and receiving electrode that induces an electric field), and receives the electric field induced in said electric field transmission medium **(see col. 10 ln 25-35, Shinagawa discusses receiving the electric field from a transmission medium),** a transceiver main body that generates said electric field based on information to be transmitted in said transmitting and receiving electrode, and converts said electric field generated in said transmitting and receiving electrode into reception information, thereby transmitting and receiving information via said electric field transmission medium **(see col. 10 ln 25-35, col. 11 ln 21-31, and col. 12 ln 1-15, Shinagawa discusses a transceiver that generates an electric field based on information to be transmitted and converts the electric field generated into reception information by using a modulation circuit and demodulation circuit within the transceiver),** a first structure that is interposed between said transmitting and receiving electrode and said electric field transmission medium **(see col. 12 ln 1-15 and Fig 8, Shinagawa illustrates an insulating film between the electrodes and transmission medium),** a second structure that is interposed between said transceiver main body and said electric field transmission medium **(see col. 13 ln 1-2 and see Fig. 11, Shinagawa shows an insulating film between the transceiver and living body)**, a battery that drives said transceiver main body **(see col. 16 ln 9-11, Shinagawa discusses a battery that drives the transceiver)**, and a third structure that is interposed between said transceiver main body and said battery **(see col. 16 ln 9-15, Shinagawa discusses the use of a metal or ground electrode between the transceiver and battery, i.e. third structure)**,

wherein each of said first, said second, and said third structures is composed of at least one of metal, a semiconductor, and an insulator, and is equivalent as a parallel circuit of a resistor and a capacitor **(see col. 16 ln 9-15, col. 10 ln 25-35, col. 11 ln 21-31, and col. 12 ln 1-15, Shinagawa discusses the use of insulating materials in the structures)**.

Consider claim 5, Shinagawa discloses a transceiver **(see Abstract ln 1-9, Shinagawa discusses a transceiver),** a transceiver main body that induces an electric field based on information to be transmitted in an electric field transmission medium from a transmitting electrode, thereby transmitting the information via said electric field transmission medium **(see Abstract ln 1-9 and col. 10 ln 25-35, Shinagawa discusses a transmitting and receiving electrode that induces an electric field)**, a battery that drives said transceiver main body **(see col. 16 ln 9-11, Shinagawa discusses a battery that drives the transceiver),** and an insulating case that incorporates said transceiver main body, wherein said transmitting electrode is provided on the whole surface of a portion of an external wall surface of said insulating case, said electric field transmission medium closely approaching the portion, and is covered with an insulating film so as not to be in direct contact with said electric field transmission medium **(see col. 13 ln 1-2 and see Fig. 11, Shinagawa shows an insulating film between the transceiver and living body)**.

Consider claims 12 and 13, Shinagawa discloses a transceiver **(see Abstract ln 1-9, Shinagawa discusses a transceiver)**, a transceiver main body that induces an electric field based on information to be transmitted in an electric field transmission

medium from a transmitting electrode, and receives information based on the electric field induced in said electric field transmission medium with a receiving electrode, thereby transmitting and receiving the information via said electric field transmission medium **(see Abstract ln 1-9, col. 5 ln 15-55, and col. 10 ln 25-35, Shinagawa discusses a transmitting and receiving electrode that induces an electric field based on data to be transmitted and received in the electric field medium)**, a battery that drives said transceiver main body **(see col. 16 ln 9-11, Shinagawa discusses a battery that drives the transceiver),** and an insulating case that incorporates said transceiver main body, wherein said transmitting electrode is provided on the whole surface of a portion of an external wall surface of said insulating case, said electric field transmission medium closely approaching the portion, and is covered with a first insulating film so as not to be in direct contact with said electric field transmission medium, and said receiving electrode is provided on an external wall surface of said first insulating film, and is covered with a second insulating film so as not to be in direct contact with said electric field transmission medium **(see col. 13 ln 1-2 and see Fig. 11, Shinagawa shows an insulating film between the transceiver and living body, i.e. transmission medium)**.

Consider claim 2, Shinagawa inherently discloses the impedance of said second structure and the impedance of said third structure are larger than the impedance of said first structure **(see Figs. 1, 8, and 10, Shinagawa illustrates the use of insulating films between the transceiver and living body and between electrodes**

and living body which makes it inherent that one insulating member should have a higher impedance than another).

Consider claim 3, Shinagawa discloses an insulating film that covers said transmitting and receiving electrode against said electric field transmission medium **(see see col. 12 ln 1-15 and Fig 8, Shinagawa illustrates an insulating film between the electrodes and transmission medium)**.

Consider claim 4, Shinagawa discloses the second structure and third structure are insulating members (**see col. 12 ln 1-15, col. 13 ln 1-2, and Figs 8-9, Shinagawa shows insulating film between the electrodes and transmission medium**).

Consider claim 6, Shinagawa discloses inherently an insulating member between said battery and said transceiver main body **(see col. 16 ln 1-16, Shinagawa discusses a battery connected to the transceiver main body, it is inherent that an insulating member exist between the battery and body to prevent damage and hold it in place)**.

Consider claims 7-9, Shinagawa discloses an insulating member **(see Figs. 8-11).**

Consider claims 10-11, Shinagawa discloses a ground electrode that defines a reference voltage which is necessary to drive said transceiver main body, and that is attached to an internal wall surface of said insulating case **(see col. 16 ln 1-16, Shinagawa discusses the use of a ground electrode to drive the transceiver)**.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Tajima et al (US 6,777,922 B2).

Consider claims 22 and 23, Tajima discloses an information obtaining system **(see Abstract ln 1-12, Figs. 11-13, and col. 9 ln 34-65, Tajima discusses an information obtaining system where the user uses an input device and transmits information when the input device is used)**, an electric field transmission sheet that transmits an electric charge and has any point thereon contacted by an electric field transmission medium **(see col. 9 ln 38-44 and col. 4 ln 1-10, Tajima discusses using an electrode on a table surface where the user uses it as an input device, i.e. transmission sheet),** a first and a second signal generators that are disposed respectively at different positions on said electric field transmission sheet, and induce electric fields based on electric signals having a first band and a second band respectively on said electric field transmission sheet **(see Fig 3, col. 4 ln 1-10, and col. 5 ln 12-36, Tajima discusses the use of multiple signal generators on the electrode which is used as an input device, i.e. transmission sheet),** and a transceiver that receives information based on an electric field induced in said electric field transmission medium, thereby receiving the information via said electric field transmission medium **(see Fig. 25 and col. 16 ln 51-67, Tajima discusses a**

communication device that receives information from an electrode placed on a surface, i.e. transmission medium), memory means for storing information based on two electric signals and positional information determined according to the electric signal information, by relating these pieces of information to each other **(see col. 13 ln 66-67 and col. 14 ln 1-8, Tajima discusses the signal source outputting previously stored identification information, i.e. positional information, to the modulator hence acting as a memory element)**, electric field detecting means for detecting an electric field transmitted after being induced in said electric field transmission medium, and converting a change of said electric field into an electric signal **(see col. 15 ln 36-49 and col. 16 ln 51-61, Tajima discusses the use of a high input impedance amplifier that detects the induced field by the transmission medium),** a band pass filter that passes only a signal component having a predetermined band containing said two electric signals out of electric signals obtained by said electric field detecting means **(see fig. 25 and col. 16 ln 11-15, Tajima discusses the use of a bandpass filter)**, and position conversion processing means for referring to said memory means and obtaining the positional information corresponding to the information based on said two electric signals that pass said band pass filter **(see col. 2 ln 21-33 and fig. 30, Tajima discusses an information processing unit where it performs a coordinate detection step, i.e. position conversion and illustrates the electric signals passing through a filter as shown in Fig. 30)**.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 14-21 are rejected under 35 U.S.C. 103(a) as being obvious over Minotani et al (US 7,069,062 B2) in view of Tajima et al (US 6,777,922 B2).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Consider claim 14, Minotani discloses a transceiver that receives information based on an electric field induced in an electric field transmission medium, thereby receiving the information via said electric field transmission medium **(see Abstract ln 1-12, col. 2 ln 55-67, and col. 5 ln 35-41, Minotani discusses a transceiver that receives information based on an electric field in an electric field transmission medium)**, memory means for storing information based on two electric signals and positional information determined according to the electric signal information, by relating these pieces of information to each other **(see Fig. 41 and col. 46 ln 1-12),** electric field detecting means for detecting an electric field transmitted after being induced in said electric field transmission medium, and converting a change of said electric field into an electric signal **(see col. 9 ln 58-67 and col. 10 ln 1-6, Minotani discusses a field detecting unit),** a filter that passes only a signal component having a predetermined band containing said two electric signals out of electric signals obtained by said electric field detecting means **(see fig 33, 34, and col. 41 ln 20-25, Minotani discusses the use of filters to eliminate harmonic components).**

Minotani does not specifically disclose position conversion processing means and obtaining positional information corresponding to the information based on said two electric signals that pass said filter. Tajima teaches position conversion processing means and obtaining positional information corresponding to the information based on said two electric signals that pass said filter **(see col. 2 ln 21-33 and fig. 30, Tajima discusses an information processing unit where it performs a coordinate**

detection step, i.e. position conversion and illustrates the electric signals passing through a filter as shown in Fig. 30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Minotani and have position conversion processing means and obtaining positional information corresponding to the information based on said two electric signals that pass said filter, as taught by Tajima, thus allowing to detect an input coordinate, as discussed by Tajima **(see col. 1 ln 47-51, Tajima discusses detecting an input from using the input device to determine positioning)**.

Consider claim 15, Tajima discloses a transceiver with memory means stores information based on signal intensity of two electric signals and positional information determined according to the signal intensity information **(see col. 13 ln 66-67 and col. 14 ln 1-8, Tajima discusses the signal source outputting previously stored identification information, i.e. positional information, to the modulator hence acting as a memory element)**, a band pass filter that passes only a signal component having a first band containing one of said electric signals obtained by said electric field detecting means and a band pass filter that passes only a signal component having a second band different from said first band containing the other of said electric signals obtained by said electric field detecting means **(see fig. 25 and col. 16 ln 11-15, Tajima discusses the use of a band pass filter to pass certain signal components)**, signal intensity measuring means for measuring signal intensity of a signal component which passes through said first band pass filter and signal intensity of

a signal component which passes through said second band pass filter **(see fig. 25 and col. 16 ln 11-15, Tajima discusses the use of a band pass filter to pass certain signal components)**, wherein said position conversion processing means refers to said memory means and obtains positional information corresponding to the information based on signal intensity of a signal component which passes through said first band pass filter and signal intensity of a signal component which passes through said second band pass filter measured by said signal intensity measuring means **(see col. 2 ln 21-33 and fig. 30, Tajima discusses an information processing unit where it performs a coordinate detection step, i.e. position conversion and illustrates the electric signals passing through a filter as shown in Fig. 30)**.

Consider claims 16 and 18, Tajima discloses memory means stores information of an intensity difference between electric signals and positional information determined according to the intensity difference information **(see col. 13 ln 66-67 and col. 14 ln 1-8, Tajima discusses the signal source outputting previously stored identification information, i.e. positional information, to the modulator hence acting as a memory element)** and said position conversion processing means calculates a difference between intensity of the signal component which passes through said first band pass filter and intensity of the signal component which passes through said second band pass filter measured by said signal intensity measuring means **(see fig. 25 and col. 16 ln 11-15, Tajima discusses the use of a band pass filter to pass certain signal components)** and obtains the positional information corresponding to the intensity difference **(see col. 2 ln 21-33 and fig. 30, Tajima discusses an information**

processing unit where it performs a coordinate detection step, i.e. position conversion and illustrates the electric signals passing through a filter as shown in Fig. 30).

Consider claims 17, 19, and 21, Tajima discloses an external device can rewrite the relation between the information of the intensity difference and the positional information stored in said memory means **(see col. 19 ln 21-40, Tajima discusses a personal computer which is an external device that displays the specified image on a display based on the positional information)**.

Consider claim 20, Tajima discloses memory means stores information based on a phase difference between two electric signals and positional information determined according to the phase difference information **(see col. 13 ln 66-67 and col. 14 ln 1-8, Tajima discusses the signal source outputting previously stored identification information, i.e. positional information, to the modulator hence acting as a memory element)**, a band pass filter that passes only a signal component having a first band containing one of said electric signals obtained by said electric field detecting means and a band pass filter that passes only a signal component having a second band different from said first band containing the other of said electric signals obtained by said electric field detecting means **(see fig. 25 and col. 16 ln 11-15, Tajima discusses the use of a band pass filter to pass certain signal components)**, phase detecting means for detecting a phase of the signal component which passes through band pass filter **(see fig. 25 and col. 16 ln 11-15, Tajima discusses the use of a band pass filter to pass certain signal components)**, wherein said position

conversion processing means calculates a difference between the phase of the signal component which passes through band pass filter and the phase of the signal component which passes through said band pass filter detected by said phase detecting means and obtains the positional information corresponding to the phase difference **(see col. 2 ln 21-33 and fig. 30, Tajima discusses an information processing unit where it performs a coordinate detection step, i.e. position conversion and illustrates the electric signals passing through a filter as shown in Fig. 30)**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATHEW VARGHESE whose telephone number is (571)270-5143. The examiner can normally be reached on Mon. - Thurs 9:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mathew Varghese/
Examiner, Art Unit 4181
01/15/08

/Nick Corsaro/
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